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(54) **PIVOT ANGLE SETTING MECHANISM**

(56) **References Cited**

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(57) **ABSTRACT**

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B62K 21/18 (2006.01)

B62K 3/00 (2006.01)

(52) **U.S. Cl.**

CPC **B62K 21/18** (2013.01); **B62K 3/002**
(2013.01)

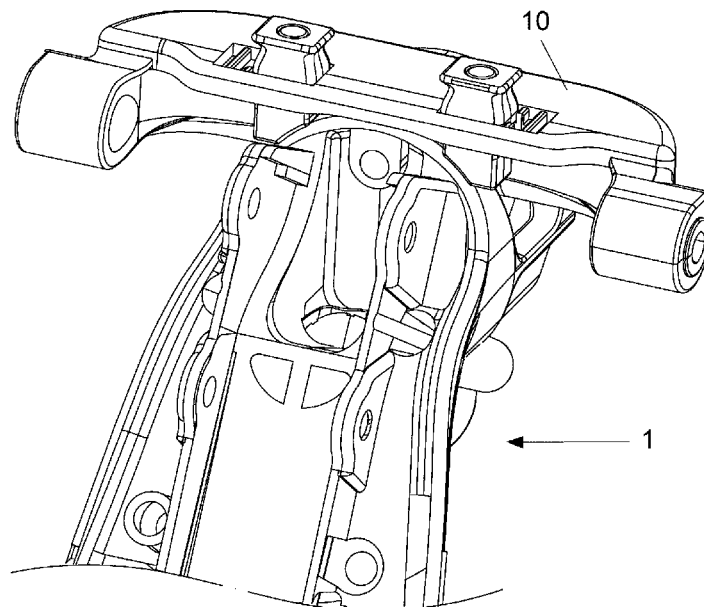
(58) **Field of Classification Search**

CPC B60K 21/18; B60K 3/002

See application file for complete search history.

A pivot angle setting mechanism of a steering bar of a push scooter is described and includes a mount secured to a front end of the push scooter, the mount including a central hole and two openings each between the central hole and either end, each opening having two parallel projections; two sliding members each including a cavity on one end, three parallel grooves on the other end wherein two of the grooves complementarily engage the projections respectively, and a channel communicating the cavity with a central one of the grooves; two limit members each including a concave surface and a hollow peg in the opening; and two spring biased pins each disposed in the cavity and having a shank fastened in the hollow peg by passing through the channel.

1 Claim, 4 Drawing Sheets



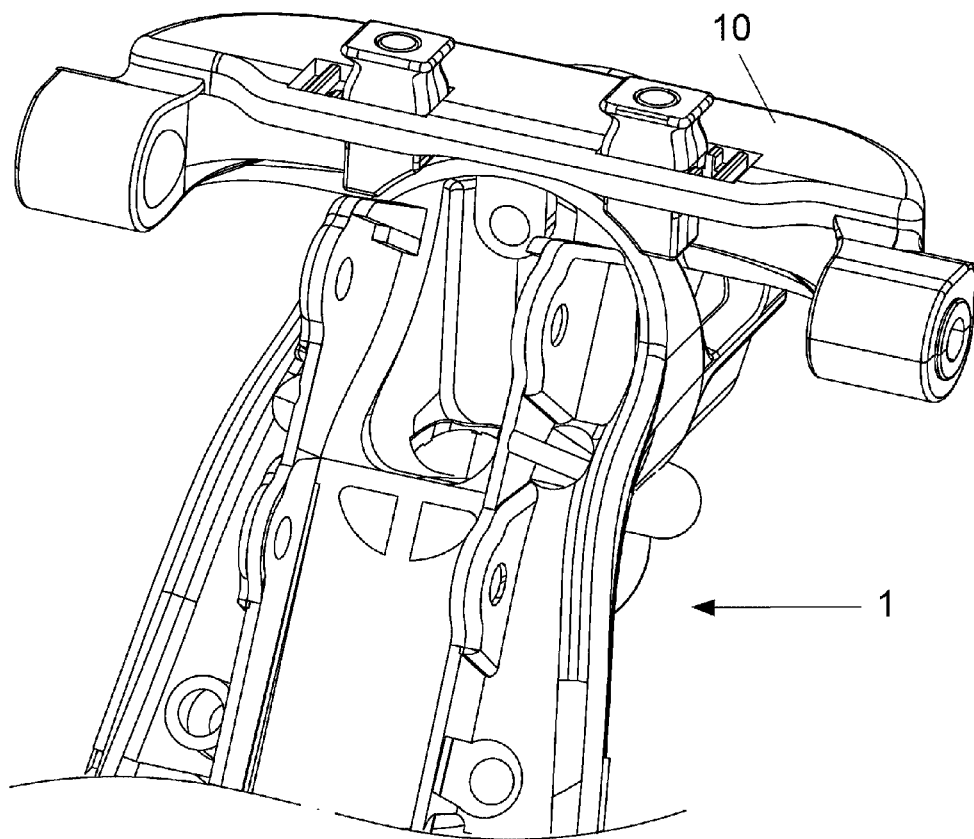


FIG.1

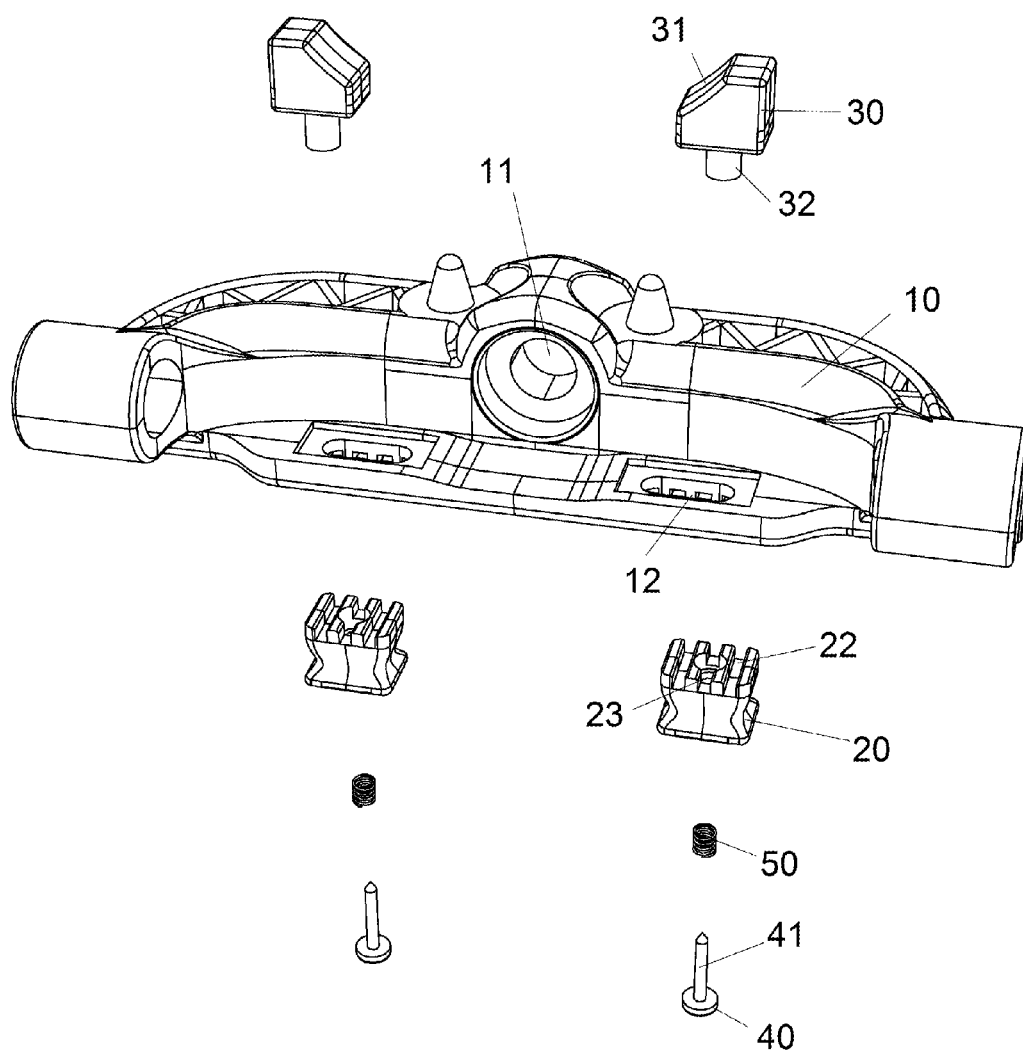


FIG.2

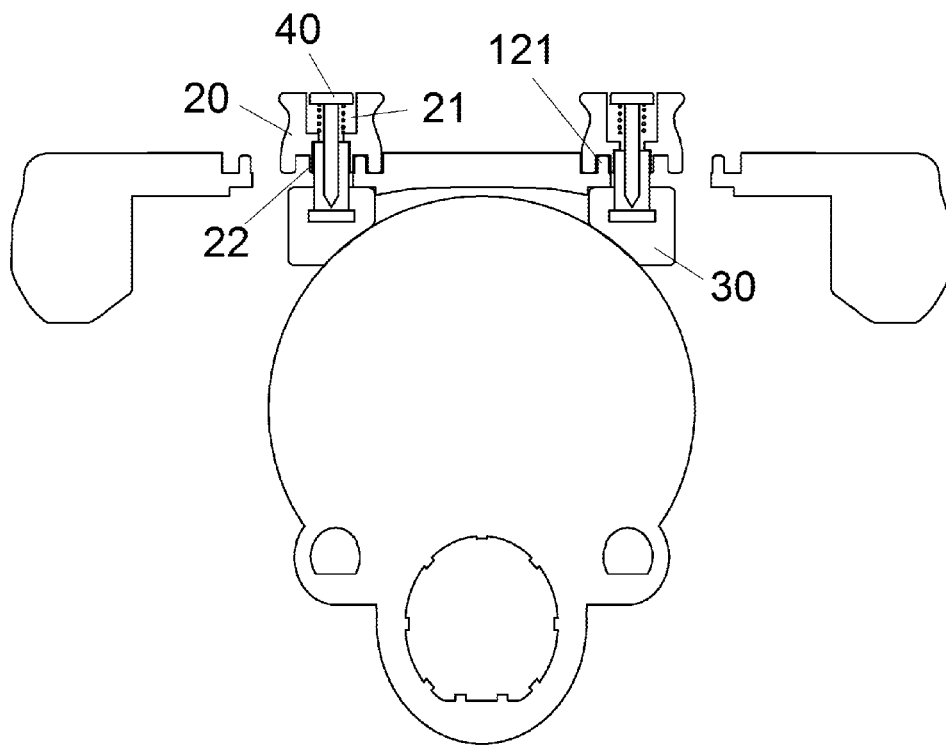


FIG.3

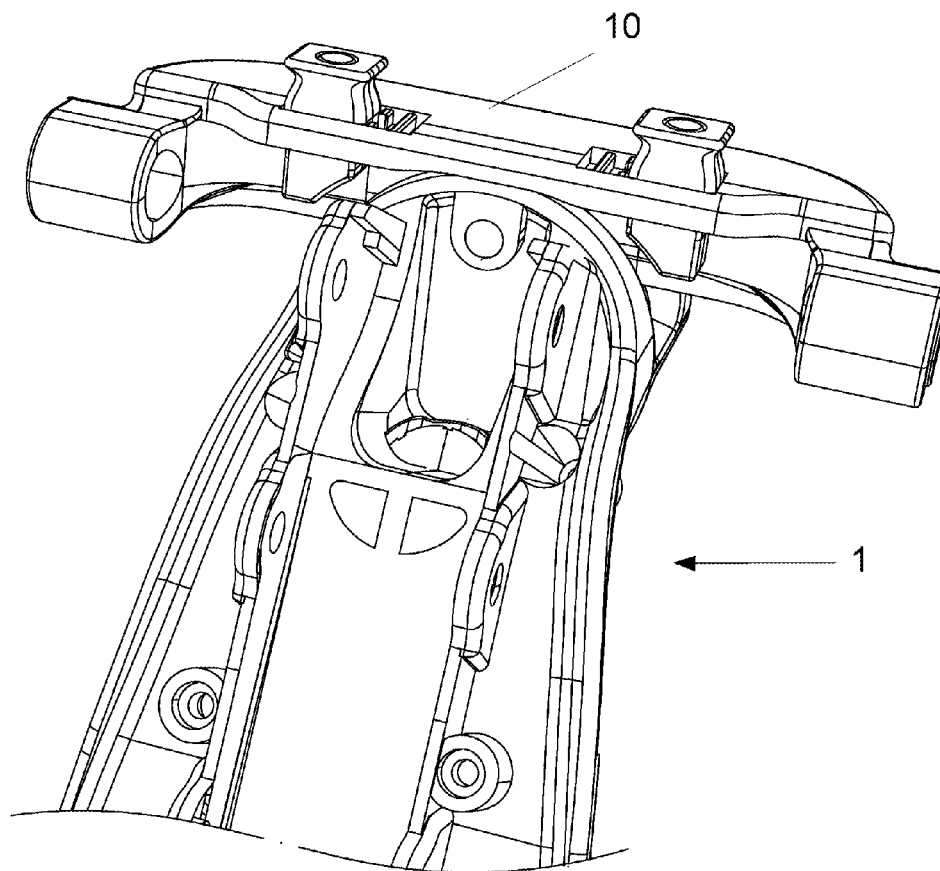


FIG.4

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PIVOT ANGLE SETTING MECHANISM**BACKGROUND OF THE INVENTION****1. Field of the Invention**

The invention relates to push scooters and more particularly to a pivot angle setting mechanism of a steering bar of a push scooter.

2. Description of Related Art

A conventional push scooter comprises a deck and a steering bar pivotally secured to the deck. However, a pivot angle of the steering bar cannot be set.

Thus, the need for improvement still exists.

SUMMARY OF THE INVENTION

It is therefore one object of the invention to provide a pivot angle setting mechanism comprising a mount secured to a front end of a push scooter, the mount including a central hole and two openings each between the central hole and either end, each opening having two parallel projections on two sides respectively; two sliding members each including a cavity on one end, three parallel grooves on the other end wherein two of the grooves complementarily engage the projections respectively, and a channel communicating the cavity with a central one of the grooves; two limit members each including a concave surface and a hollow peg in the opening; and two spring biased pins each disposed in the cavity and having a shank fastened in the hollow peg by passing through the channel.

The above and other objects, features and advantages of the invention will become apparent from the following detailed description taken with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a front, bottom portion of a push scooter having a pivot angle setting mechanism according to the invention where a zero pivot angle of the steering bar is set;

FIG. 2 is an exploded view of the pivot angle setting mechanism;

FIG. 3 schematically depicts the pivot angle setting mechanism; and

FIG. 4 is a view similar to FIG. 1 where a pivot angle of the steering bar is set.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIGS. 1 to 4, a pivot angle setting mechanism of the invention comprises a mount **10** secured to a front end

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of a push scooter **1**, the mount **10** having two ends with two wheels (not shown) mounted thereon respectively, a central hole **11** with a steering bar (not shown) pivotally fastened therein, and two openings **12** each between the hole **11** and either end, the opening **12** having two parallel projections **121** on two sides respectively; two sliding members **20** each comprising a cavity **21** on one end, three parallel grooves **22** on the other end wherein two grooves **22** complementarily engage the projections **121** respectively, and a channel **23** communicating the cavity **21** with the central groove **22**; two limit members **30** each comprising a concave surface **31** engaged the steering bar in the position of FIG. 1, and a hollow peg **32** in the opening **12**; two pins **40** each disposed in the cavity **21** and having a shank **41** fastened in the peg **31** by passing through the channel **23**; and two compression springs **50** each put on the shank **41**.

For setting a pivot angle of the steering bar from the one shown in FIG. 1 (e.g., zero pivot angle) to the one shown in FIG. 4, a person may pull the sliding members **20** to clear the grooves **22** out of the projections **121** with the compression springs **50** compressed, move the sliding members **20** and the limit members **30** outward laterally until a desired position is reached, and release the sliding members **20** with the compression springs **50** expanded and the projections **121** disposed in the grooves **22** again. As shown in FIG. 4, the steering bar can pivot an angle from a position when the steering bar contacts the concave surface **31** of one limit member **30** to a position when the steering bar contacts the concave surface **31** of the other limit member **30**.

While the invention has been described in terms of preferred embodiments, those skilled in the art will recognize that the invention can be practiced with modifications within the spirit and scope of the appended claims.

What is claimed is:

1. A pivot angle setting mechanism comprising:
 - a mount secured to a front end of a push scooter, the mount including a central hole and two openings each between the central hole and either end, each opening having two parallel projections on two sides respectively;
 - two sliding members each including a cavity on one end, three parallel grooves on the other end wherein two of the grooves complementarily engage the projections respectively, and a channel communicating the cavity with a central one of the grooves;
 - two limit members each including a concave surface and a hollow peg in the opening; and
 - two spring biased pins each disposed in the cavity and having a shank fastened in the hollow peg by passing through the channel.

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